14. The non-human transgenic animal of claim 13, wherein said regulatory sequence is a heat shock protein (hsp) promoter.

15. The non-human transgenic animal of claim 13, wherein said reporter gene is a growth hormone (GH) gene, a chloramphenical acetyl transferase (CAT) gene, or a green fluorescence protein (GFP) gene.

16. The non-human transgenic animal of claim 15, wherein said regulatory sequence is a heat shock protein (hsp) promoter and said reporter gene is a green fluorescence protein (GFP) gene.

17. The non-human transgenic animal of claim 13, wherein said regulatory sequence is a cytochrome promoter of the P450-superfamily or the p53 gene promoter.

18. The non-human transgenic animal of claim 13, which is a mammal.

19. The non-human transgenic animal of claim 18, which is a rodent.

20. The non-human transgenic animal of claim 19, which is a mouse.

21. A primary cell culture obtained from the transgenic animal of claim 13, wherein cells in the culture comprise a construct of a stress-sensitive regulatory sequence linked to a reporter-gene sequence.

22. The primary cell culture of claim 22, which is a fibroblast, hepatocyte, kidney, lung, or bone marrow cell culture.

23. A method for analysis of a chemical, physical, or biological toxic agent, which method comprises the steps of:

(a) exposing the transgenic animal of claim 13 to the toxic agent;

(b) measuring expression of the reporter gene; and

(c) relating said expression to an effect of said toxic agent.

24. The method of claim 23, wherein the same animal is used for repeated tests with the same toxic agent or with a different toxic agent.

25. The method of claim 23, wherein said analysis is of toxicity kinetics of one or more toxic agents.

26. The method of claim 23, wherein said analysis is of heat stress.

27. The method of claim 23, wherein said analysis is of metal toxicity.

28. The method of claim 27, wherein the metal is selected from the group consisting of Rb, Cr, Cu, Hg, As, and Cd.

29. A method for analysis of the toxicity of a chemical, physical, or biological agent, which method comprises the steps of:

(a) preparing a primary culture from the transgenic animal of claim 13, in which the cultured cells comprise a construct of a stress-sensitive regulatory sequence linked to a reporter-gene sequence;

(b) exposing the primary culture to said agent;

(c) measuring expression of the reporter gene; and

(d) relating said expression to an effect of said agent.

30. The method of claim 29, wherein said primary culture is a fibroblast or a hepatocyte primary culture.

31. The method of claim 29, wherein said agent is a metal.

32. The method of claim 31, wherein the metal is selected from the group consisting of Rb, Cr, Cu, Hg, As, and Cd.

33. A method for *in vivo* analysis of the toxicity of a chemical, physical, or biological agent, which method comprises the steps of:

(a) exposing a transgenic animal of claim 13 to the agent;